Number 1
THROMBOSIS AND HEMOSTASIS IN EMERGENCY MEDICINE
Konrad Weiss, M.D., and Fritz Sterz, M.D.

Preface

Preclinical Management of Thromboembolic Disorders, Wolfgang Schreiber, M.D., Hermann Georg Stuehlinger, M.D., Michael Brunner, M.D., and Ursula Hollenstein, M.D.

Thrombolytic Therapy in Acute Myocardial Infarction, Kurt Huber, M.D., and Gerald Maurer, M.D.

Pulmonary Thromboembolism: Epidemiology and Techniques of Nuclear Medicine, Konrad Weiss, M.D.

Pulmonary Embolism. II. Diagnosis and Treatment, Karin Janata-Schwatczek, M.D., Konrad Weiss, M.D., Irmgard Riezinger, M.D., Alexander Bankier, M.D., Hans Domanovits, M.D., and Dan Seidler, M.D.

Acute Ischemic Stroke, Michael Huber, M.D., and Wolf-Dieter Heiss, M.D.

Thrombolytic Therapy in Acute Lower Limb Ischemia, Ernst Pilger, M.D.

Disseminated Intravascular Coagulation: Objective Clinical and Laboratory Diagnosis, Treatment, and Assessment of Therapeutic Response, Rodger L. Bick, M.D., Ph.D., F.A.C.P.

Blood Rheology in Emergency Medicine, Renate Koppensteiner, M.D.

Management of Acquired Coagulation Disorders in Emergency and Intensive-Care Medicine, Thomas Staudinger, M.D., Gottfried Johannes Locker, M.D., and Michael Frass, M.D.

Possibilities of Brain Protection with Tirilazad after Cardiac Arrest, Fritz Sterz, M.D., Karin Janata, M.D., Istepan Kürkciyan, M.D., Marcus Müllner, M.D., Reinhard Malzer, M.D., and Wolfgang Schreiber, M.D.

Announcement

Number 2
THROMBIN FUNCTIONS AND NEW PROSPECTS IN ANTITHROMBOTIC THERAPY, PART I
John W. Fenton II, Ph.D., F.A.C.B., and Marie-Claude Guillin, M.D., Ph.D.

Preface

Molecular Interactions in Thrombin, Alexander Tulinsky, Ph.D.

The Thrombin Receptor in the Nervous System, Hana S. Suidan, Ph.D., Simone P. Niclou, and Denis Monard, Ph.D.

Thrombin Stimulation of Renal Cells, Eric Rondeau, M.D., Ph.D., Ci-Jiang He, M.D., Ph.D., Ute Zacharias, Ph.D., and Jean-Daniel Sraer, M.D.

Thrombin and Vascular Smooth Muscle Cell Proliferation: Implications for Atherosclerosis and Restenosis, Coleen A. McNamara, M.D., Ian J. Sarembock, M.B., Ch.B., M.D., Brian G. Bachhuber, M.D., George A. Stouffer, M.D., Michael Ragosta, M.D., William Barry, M.D., Lawrence W. Gimple, M.D., Eric R. Powers, M.D., and Gary K. Owens, Ph.D.

Thrombin-Mediated Events Implicated in Mast Cell Activations, Svetlana M. Strukova, D.Sci., Tamara N. Dugina, Ph.D., Svetlana V. Khlgatian, Ph.D., Alexey E. Redkozubov, Ph.D., Galina P. Redkozubova, Ph.D., and Vsevolod G. Pinelis, D.Sci.

Thrombin Interaction With Platelet Membrane Glycoprotein Ib, Martine Jandrot-Perrus, M.D., Marie-Christine Bouton, Ph.D., François Lanza, Ph.D., and Marie-Claude Guillin, M.D., Ph.D.

Physiopathological Significance of Catalytic Phospholipids in the Generation of Thrombin, Jeanne Dachary-Prigent, D.Sci., Florence Toti, Ph.D., Nathalie Satta, M.Sci., Jean-Max Pasquet, M.Sci., André Uzan, Pharm.D., D.Sci., and Jean-Marie Freyssinet, D.Sci.

Thrombin Regulation by Physiological Inhibitors: The Role of Vitronectin, Klaus T. Preissner, Ph.D., Hetty de Boer, Ph.D., Hans Pannekoek, Ph.D., and Phillip G. de Groot, Ph.D.

A Family of Arginal Thrombin Inhibitors Related to Efegatran, Gerald F. Smith, Ph.D., J.D., Robert T. Shuman, B.S., Trelia J. Craft, B.S., Donetta S. Gifford, B.S., Kenneth D. Kurz, Ph.D., Noel D. Jones, Ph.D., Nickolay Chirgadze, Ph.D., Robert B. Hermann, Ph.D., William J. Coffman, George E. Sandusky, Ph.D., Eiry Roberts, M.D., and Charles Van Jackson, Ph.D.

Hirudins: From Leeches to Man, Robert B. Wallis, Ph.D.

Quantitative Determination of Hirudin in Blood and Body Fluids, Goetz Nowak, M.D., and Elke Bucha, M.D.

Thrombin Inhibitors of Bloodsucking Animals, Johannes Dodt, Ph.D., Marcus Otte, M.S., Karl-Hermanna Strube, Ph.D., and Thomas Freidrich, Ph.D.

Glycosaminoglycans: Clinical Use, Bernard Boneu, M.D.

Pharmacological Profiling of Recombinant Tissue Factor Pathway Inhibitor, Walter Jeske, Ph.D., Debra Hoppensteadt, M.S., Demetra Callas, Ph.D., Michael J. Koza, B.S., and Jawed Fareed, Ph.D.

Announcement

Number 3
THROMBIN FUNCTIONS AND NEW PROSPECTS IN ANTITHROMBOTIC THERAPY, PART II
John W. Fenton II, Ph.D., F.A.C.B., and Marie-Claude Guillin, M.D., Ph.D.

Thrombin Receptor Antagonists, Steven M. Seiler, Ph.D.

Antithrombotic Activity of Argatroban in Experimental Thrombosis in the Rabbit, Christopher N. Berry, Ph.D., Denise Girard, Christine Girardot, Sylvette Lochot, Catherine Lunven, Ph.D., and Catherine Visconte, Ph.D.

Active Site-Directed Thrombin Inhibitors: α-Hydroxyacyl-Prolyl-Arginals, New Orally Active Stable Analogues of D-Phe-Pro-Arg-H, Sandor Bajusz., Ph.D., Eva Barabas, Ph.D., Iren Fauszt, Ph.D., Andras Feher, M.S., Gyula Horvath, Ph.D., Attila Juhasz, Ph.D., Gabriella A. Szabo, M.D., and Erzsebet Szell, M.S.

Pharmacologic and Biochemical Profiles of New Venous Antithrombotic β-D-Xyloside Derivatives: Potential Antiathero/thrombotic Drugs, Niall B. Martin, Ph.D., Philippe Masson, Ph.D., Christiane Sepulchre, Ph.D., Jocelyne Theveniaux, Jean Millet, Ph.D., and Francois Bellamy, Ph.D.

Protective Effects of DX-9065a, an Orally Active, Novel Synthesized and Selective Inhibitor of Factor Xa, Against Thromboplastin-Induced Experimental Disseminated Intravascular Coagulation in Rats, Masahide Yamazaki, M.D., Hidesaku Asakura, M.D., Keiji Aoshima, M.D., Masanori Saito, M.D., Hiroshi Jokaji, M.D., Chika Uotani, M.D., Ichiro Kumabashiri, M.D., Eriko Morishita, M.D., Takayudi Ikeda, M.D., and Tamotsu Matsuda, M.D.

Relaxant and Contractile Responses of Porcine Pulmonary Arteries to Thrombin and Thrombin Receptor Activating Peptides, Erika Glusa, M.D., Manfred Paintz, Ph.D., and Ellen Bretschneider, M.D.

Thrombin, Its Receptor and Protease Nexin I, Its Potent Serpin, in the Nervous System, Barry W. Festoff, M.D., Irina V. Smirnova, Ph.D., Jianxin Ma, M.D., and Bruce A. Citron, Ph.D.

Platelet Aggregation and Coagulation Inhibitors in Leech Saliva and Their Roles in Leech Therapy, Meir Rigbi, Ph.D., Miriam Orevi, M.S., and Amiram Eldor, M.D.

Visualization of Activation-Dependent Epitopes on Glycoprotein IIb-IIIa Complexes of Platelets Stimulated by Thrombin: Immunogold Staining of Ultrathin Sections, Michel Humbert, Ph.D., Thomas J. Kunicki, Ph.D., Claude Bihour, Ph.D., Joëlle Winckler, Alan T. Nurden, Ph.D., and Paquita Nurden, M.D., Ph.D.

Platelet Internalization in Early Thrombogenesis, Elizabeth A. Leistikow, M.D., Ph.D.

Abstracts of Current Literature
Announcement

Number 4
THROMBIN FUNCTIONS AND NEW PROSPECTS IN ANTITHROMBOTIC THERAPY, PART III
John W. Fenton II, Ph.D., F.A.C.B., and Marie-Claude Guillin, M.D., Ph.D.

In Memoriam—Walter H. Seegers
Control Mechanisms in Thrombin Generation, Frederick A. Ofosu, Ph.D., Longbin Liu, M.D., and John Freedman, M.D.
Regulation of Thrombin-Mediated Endothelial Cell Contraction and Permeability, Joe G.N. Garcia, M.D., Alexander D. Verin, Ph.D., and Kane L. Schaphorst, M.D.
Serine/Threonine Dephosphorylation May Be Involved in Tyrosine Phosphorylation: A New Mode of Signal Transduction in Platelets, Valérie Artçanuthurry, B.Sc., Françoise Grelac, B.Sc., Jacques Maclouf, Ph.D., Elisabeth Martin-Cramer, M.D., and Sylviane Lévy-Tolédano, Ph.D.
The Arterial Antithrombotic Activity of Thioxylosides in a Rat Model of Laser-Induced Thrombosis, Omar Aguejouf, M.S., Fatima Azougagh Oualane, Ph.D., Jocelin Inamo, M.D., Patrick Imbault, M.S., Françoise Doutremepuich, M.D., Jean Millet, Ph.D., Jocelyne Theveniaux, Ph.D., and Christian Doutremepuich, M.D., Ph.D.
New Model for In Vivo Studies of Pharmacological Interventions With Endogenous Fibrinolysis: Effects of Thrombin Inhibitors, Susanne Lenfors, B.Sc., and David Gustafsson, M.D., Ph.D.
Synthesis and Study on a Novel Inhibitor of Thrombin Containing No Side Chain at the P1 Position of the Polypeptide Chain, Alexandr A. Gershkovich, Ph.D., Dmitry I. Kara, Ph.D., and Vladimir K. Kibirev, Ph.D.
Prothrombin-Related Antigens in Human Aortic Intima, Elspeth B.Smith, Ph.D., D.Sc., Lynn Crosbie, B.S., M.S., and Stephen Carey, B.S.
Thrombin Receptor-Related Hemostatic Defect After Cardiopulmonary Bypass, Victor A. Ferraris, M.D., Ph.D., Suellen P. Ferraris, Ph.D., Herbert Reich, M.D., Evelio Rodriguez, M.D., Mark Huang, M.D., Atul Gupta, M.D., James A. Bennett, Ph.D., Thomas T. Andersen, Ph.D., and John W. Fenton II, Ph.D.
The Influence of C_1-Esterase Inhibitor Substitution on Coagulation and Cardiorespiratory Parameters in an Endotoxin-Induced Rabbit Model of Hypercoagulability, Ralf U. Scherer, M.D., Reiner M. Giebler, M.D., Ulrich Schmidt, M.D., Dietrich Paar, M.D., and Wolfgang J. Kox, M.D., Ph.D.

Number 5
FACTOR XIII: STATE OF THE ART 1996
Rainer Seitz, M.D., Jan McDonagh, Ph.D., and Rudolf Ebring, M.D.

Preface
Determinants of Substrate Specificity for Factor XIII, Jan McDonagh, Ph.D., and Hidetake Fukue, M.D.
Structure and Function Studies of Factor XIIIa by x-ray Crystallography, Vivien C. Yee, Ph.D., Isolde Le Trong, Dipl. Biol., Paul D. Bishop, Ph.D., Lars C. Pedersen, Ph.D., Ronald E. Stenkamp, Ph.D., and David C. Teller, Ph.D.
The Normal and Abnormal Genes of the *a* and *b* Subunits in Coagulation Factor XIII, Akitada Ichinose, M.D., Ph.D., Tomonori Izumi, Ph.D., and Teruto Hashiguchi, M.D.
Gene Defects in Congenital Factor XIII Deficiency, Hanna Mikkola and Aarno Palotie, M.D., Ph.D.
Intracellular Factor XIII: Cellular Distribution of Factor XIII Subunit a in Humans, Róza Ádány, M.D., Ph.D., D.Sc.
Platelet-Associated Factor XIII in Platelet Activation, Adhesion, and Clot Stabilization, Dana V. Devine, Ph.D., and Paul D. Bishop, Ph.D.
ETRO Working Party on Factor XIII Questionnaire on Congenital Factor XIII Deficiency in Europe: Status and Perspectives, Rainer Seitz, M.D., Francois Duckert, M.D., S. Lopaciuk, M.D., L. Muszbek, Ph.D., F. Rodeghiero, M.D., U. Seligsohn, M.D., and Study Group
Factor XIII Deficiency: Pathogenic Mechanisms and Clinical Significance, Rudolf Egbring, M.D., Arno Kröniger, Ph.D., and Rainer Seitz, M.D.
Therapeutic Factor XIII Preparations and Perspectives for Recombinant Factor XIII, Hermann E. Karges, Ph.D., and Hubert J. Metzner, Ph.D.
Tissue Transglutaminase and Factor XIII in Cartilage and Bone Remodeling, Daniel Aeschlimann, Ph.D., Deane Mosher, M.D., and Mats Paulsson, M.D.
Factor XIII in Ulcerative Leg Disease: Background and Preliminary Clinical Results, Gernold Wozniak, M.D., F.I.C.A., Friedhelm Dapper, M.D., and José Alemany, M.D., F.I.C.A.
Factor XIII in Chronic Inflammatory Bowel Disease, Reinhard Lorenz, M.D., Peter Olbert, and Peter Born, M.D..

Number 6
FIBRINOLYSIS IN TISSUES
Franco Carmassi, M.D., and Soo Il Chung, Ph.D.

Preface
The Fibrinolytic System in Neoplasia, William R. Bell, M.D.
Factors That Control Extravascular Fibrinolysis, Soo Il Chung, Ph.D., Soo Young Lee, Ph.D., Ryogin Uchino, M.D., and Franco Carmassi, M.D.
Fibrin Degradation in the Synovial Fluid of Rheumatoid Arthritis Patients: A Model for Extravascular Fibrinolysis, Franco Carmassi, M.D., Ferdinando de Negri, M.D., Marco Morale, M.D., Ki Young Song, Ph.D., and Soo Il Chung
The Role of Inflammatory Cells and Their Proteases in Extravascular Fibrinolysis, Margarethe Heiden, Ph.D., Rainer Seitz, M.D., and Rudolf Egbring, M.D.
The Macrophage and Fibrinolysis, Joseph Loscalzo, M.D., Ph.D.
Molecular Mechanisms to Form Leukocyte Infiltration Patterns Distinct between Synovial Tissue and Fluid of Rheumatoid Arthritis, Tetsuro Yamamoto, M.D., Hiroshi Nishiura, D.M.D., and Hidefumi Nishida, M.D.
The Urokinase Receptor and Cell Migration, Francesco Blasi, M.D.
Angiogenesis and the Fibrinolytic System, Giuseppe Pintucci, Ph.D., Andreas Bikfalvi, M.D., Ph.D., Sharon Kelin, M.S., and Daniel B. Rifkin, Ph.D.
Gene Manipulation and Transfer of the Plasminogen and Coagulation System in Mice, Peter Carmeliet, M.D., Ph.D., and Désiré Collen, M.D., Ph.D.
Abstracts of the Current Literature
Author Index and Cumulative Table of Contents, Volume 22